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(54) Title: A METHOD FOR GENE MAPPING FROM GENOTYPE AND PHENOTYPE DATA

(57) Abstract: The present invention relates to a method for gene mapping from genotype and phenotype data, which method utilizes linkage disequilibrium between genetic markers  $m_i$ , which are polymorphic nucleic acid or protein sequences or strings of single-nucleotide polymorphisms deriving from a chromosomal region. All marker patterns  $P$  that satisfy a certain pattern evaluation function  $e(P)$  are searched from the data, each marker  $m_i$  of the data is scored by a marker score and the location of the gene is predicted as a function of the scores  $s(m_i)$  of all the markers  $m_i$  in the data.



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